Title: **Ohm's Wheel** Test: 3

Course: Electrical Applications Unit: Electrical Theory CLO: 3

Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Grade \_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Objectives**

1. Student shall calculate various electrical quantities based on the Ohm’s Wheel.

**Assessment**

Students shall demonstrate a comprehension of the objectives listed above by scoring a minimum of 75% on this Test. Grading shall be based on an answer key.

**Instructions**

Calculate the missing quantity based on the two givens.

1. A 330Ω resistor has a potential of 10V across the leads. What is the current?
2. A load draws 250mA with a voltage drop of 14V would represent how much resistance?
3. A 2000W projector operates on 120V. What is the projector’s current draw?
4. A light bulb that dissipates 24W and operates off a 12V source draws how much current?
5. A 680Ω resistor dissipates 5W. What is the current?
6. What is the voltage of the above circuit?
7. A load that draws 0.5A and dissipates 500mW would require how much source voltage?
8. What is the load resistance of the above circuit?
9. A circuit that has a source voltage of 67V and has a load resistance of 2.2kΩ would dissipate how much power?
10. What is the current draw of the above circuit?

This page left intentionally almost blank